

PATENT CLAIMS

- 1) Process for treatment of gases which are exhausted through a sinter bed (20) in a sintering plant (10), wherein a distinction can be made between a cold zone (36) of the sintering plant with relatively low gas temperatures and a hot zone (38) of the sintering plant with substantially higher gas temperatures; characterized in that the gases from the cold zone (36) of the sintering plant and the gases from the hot zone (38) of the sintering plant are exhausted and treated as separate partial flows.
- 2) Process according to claim 1, characterized in that the partial flow from the cold zone (36) of the sintering plant undergoes only dust removal treatment.
- 3) Process according to claim 1 or 2, characterized in that dust is removed from the partial flow from the cold zone (36) of the sintering plant in one or more electric or filtering separators (32).
- 4) Process according to one of claims 1 to 3, characterized in that the partial flow from the hot zone (38) of the sintering plant first undergoes dust removal treatment and is subsequently treated to reduce the hydrocarbons present, in particular dioxins and furans.
- 5) Process according to claim 4, characterized in that the dust removal from the partial flow from the hot zone (38) of the sintering plant takes place in an electric or filtering separator (34).
- 6) Process according to claim 4 or 5, characterized in that the hydrocarbons present, in particular dioxins and furans, are reduced on a catalyzer (42).
- 7) Process according to one of claims 4 to 6, characterized in that the partial flow from the hot zone (38) of the sintering plant is additionally heated before treatment to reduce the hydrocarbons present, in particular dioxins and furans.
- 8) Process according to claim 7, characterized in that the additional heating is effected by combustion of the CO present in the gas.
- 9) Process according to claim 8, characterized in that the additional heating takes place in a CO catalyzer (44).

10) Process according to one of claims 1 to 9, characterized in that the partial flow from the hot zone (38) of the sintering plant is additionally treated to reduce the NO_x content.

5 11) Process according to claim 10, characterized in that the treatment to reduce the NO_x content comprises injection of NH₃ into the partial flow from the hot zone (38) of the sintering plant.

12) Process according to one of claims 1 to 11, characterized in that the partial flow from the hot zone (38) has a mixing temperature of more than 180°C and the partial flow from the cold zone (36) a mixing temperature of less than 100°C.

10 13) Process according to one of claims 1 to 12, characterized in that the dioxin and furan content in the partial flow from the cold zone (36) is less than 0.5 ng/m³ N.T.P.

14) Process according to one of claims 1 to 13, characterized in that the two partial flows are approximately the same size under standard conditions.

15 15) Process according to one of claims 1 to 14, characterized in that in the partial flow from the hot zone (38) the fan (26) is arranged behind the electric or filtering separator (34) and in front of the catalyzer (42).